

ТЕЗИ КОНФЕРЕНЦІЇ

HAZARD FORECASTING FOR HUMAN WHILE CONSUMING
AGRICULTURAL PRODUCTS CONTAMINATED BY
PYRAZOLECARBOXAMIDES CLASS FUNGICIDES¹Antonenko A.M., ¹Vavrinevych O.P., ¹Korshun M.M., ³Omelchuk S.T.,
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It is known that the application of chemical plant protection products to combat various diseases is an integral part of intensive crop cultivation technologies. But the presence of residues in food products and raw materials can lead to violations in the health of consumers. Therefore, the assessment of the risk associated with the consumption of products containing pesticide residues is a vital and integral part of regulatory processes.

The purpose of our work was to forecast and compare the danger to a person when consuming agricultural products contaminated with pyrazolecarboxamides class fungicides.

Materials and methods. For an integrated assessment of the potential hazard on a four-graded scale, the allowable daily intake (ADI), the half-life in plants (DT_{50}), and the average daily consumption of the product were estimated.

After adding all the obtained points, the integral index of pesticide contaminated product consumption hazard (IIPCPCCH) was estimated as follows: with the value of IIPCPCCH of 3-5 points - substances were low dangerous to humans (class 4), 6-8 – moderately dangerous (class 3), 9-11 – dangerous (class 2), > 11 – extremely dangerous (class 1).

Results. According to persistence in crops, fungicides of the pyrazolecarboxamide class (isopyrazam, penhiopyrad, sedaxane, fluxapyroxad) can be classified as hazard classes 4 (low hazardous compounds).

By the value of IIPCCH, all investigated compounds belong to the 3rd class of hazard– moderately hazardous. This is due, first of all, to the fact that they are low toxic and rapidly destroyed in agricultural products. In addition, the formulations based on the studied compounds are used mainly for the treatment of grain crops that are not used by human in raw form.

Conclusion.It was established that by the value of the integral index of pesticide contaminated product consumption hazard isopyrazam, penthiopyrad, sedaxane, fluxapyroxad belong to 3 classes of hazard– moderately hazardous.

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